

DOCKET NO.: 215504US6PCT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

GROUP: 1731

Bruno GIBELLO

SERIAL NO: 09/926,415

EXAMINER: Hoffman, John M.

FILED: June 19, 2002

FOR: PRODUCTION METHOD WITH BREAKAGE DETECTION FOR A THREAD

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s). No more than five (5) pages are provided.

I am the attorney or agent of record.

Respectfully Submitted,

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IN RE APPLICATION OF :
BRUNO GIBELLO : EXAMINER: HOFFMANN, JOHN M.
SERIAL NO: 09/926,415 :
FILED: JUNE 19, 2002 : GROUP ART UNIT: 1731
FOR: PRODUCTION METHOD WITH :
BREAKAGE DETECTION FOR A THREAD :

REMARKS ACCOMPANYING PRE-APPEAL BRIEF REQUEST FOR REVIEW

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicants respectfully request that a Pre-Appeal Brief Conference be initiated in accordance with the pilot program outlined in the Official Gazette Notice of July 12, 2005.

In the August 15, 2005 Office Action, Claims 1-2, 6, 11, 19, 22 and 24 were rejected under 35 U.S.C. §112, second paragraph, as indefinite. Claims 25-28 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 1-2, 6-7, 11, 15, 19, 22, 24-28 were rejected under 35 U.S.C. §103(a) as unpatentable over Minkler (U.S. Patent No. 3,560,178) in view of Harrill (U.S. Patent No. 3,844,497), Underwood (U.S. Patent No. 3,467,739) and Arterburn (U.S. Patent No. 5,935,289) and optionally in view of Fulk (U.S. Patent No. 3,847,579).

The October 18, 2005 Advisory Action indicated that the rejection of Claims 1-2, 6, 11, 19, 22 and 24 under 35 U.S.C. §112, second paragraph, and the rejection of Claims 26 and 28 under 35 U.S.C. §112, first paragraph, are overcome. Claims 25 and 27 were cancelled by Amendment filed on November 15, 2005 to overcome the rejection under 35 U.S.C. §112, first paragraph.

In response to the rejection of Claims 1-2, 6-7, 11, 15, 19, 22, 24 and 26 under 35 U.S.C. §103(a), Applicant respectfully requests review of this rejection.

Applicant respectfully submits that *all the references* Minkler, Harrill, Underwood, Arterburn and Fulk, taken individually or in combination, *fail to teach or suggest* the monitoring of a position of the wheel to determine whether a tension exerted by the multiplicity of the filaments falls below a predetermined tension, as next discussed.

Minkler discloses an apparatus for producing fiber glass where filaments are gathered into a strand, where upon *break-out of the strand*, a switch is opened and the electric circuit which supplies current to the winder motor is interrupted.¹ Applicant respectfully submits that Minkler does not only fail to teach or suggest that a breakage of at least one filament is detected before breakage of the entire yarn, but also fails to teach or suggest the monitoring of a position of the wheel to determine whether a tension exerted by the multiplicity of the filaments falls below a predetermined tension. First, Minkler clearly teaches that “upon breakage of the fibers and when no fibers contact the shoe 16, the counterweight 62 causes the arm 38 to pivot to its Figure 3 position.”² Accordingly, Minkler does not teach a step of monitoring a position of the wheel whether a tension exerted by filaments falls below a predetermined value. The shoe 16 merely displaces itself laterally after Minkler’s entire strand is torn. Accordingly, when Minkler’s shoe 16 displaces itself, there is no tension at all caused by the strand. Second, Minkler discloses that upon *break-out of the strand*, a mercury switch is opened.³ Therefore Minkler fails to teach or suggest the detecting of breakage of at least one filament before breakage of the entire yarn strand, as recited in Claim 1. Otherwise, Minkler’s shoe 16 cannot displace itself. Minkler even teaches that the electrical circuit for driving the shoe can be closed “only when the strand contacts the shoe.”⁴ Accordingly, Minkler teaches away from Applicant’s invention.

¹ See Minkler at column 1, lines 50-56 and in corresponding Figure 2.

² See Minkler at column 2, lines 66-69 and in corresponding Figures 2 and 3.

³ See Minkler in the Abstract.

⁴ See Minkler at column 1, lines 63-69.

Fulk does also not disclose the above-noted features that Minkler fails to disclose. Fulk discloses a method and apparatus for controlling the tension of linear materials between material feeding and collecting.⁵ Fulk's apparatus thereby provides a predetermined tension between the delivering and collecting means, with the biasing force of a spring 58 and a damping mechanism 200.⁶ Further, Fulk controls the rotational speed of the collet 80, as shown in Fulk's Figure 5. Accordingly, Fulk fails to teach or suggest the detection of a breakage of at least one filament before breakage of the entire yarn. Controlling a rotational speed, as taught by Fulk, *is not* detecting any breakage of all or part of any yarn. Fulk also fails to teach or suggest the Claim 1 monitoring of a position of the wheel to determine whether a tension exerted by the multiplicity of the filaments falls below a predetermined tension. Fulk has *no means to measure a tension* of the filaments.

Harrill fails to remedy the deficiencies of Minkler and/or Fulk, because it also does not teach or suggest the features of Applicant's independent Claim 1, as mentioned above. Harrill discloses a system for stopping a collet in a spiral glass filament winding machine, in the event of strand breakage.⁷ Harrill also fails to teach or suggest Applicant's claimed monitoring of a position of the wheel or wheel movement to determine whether a tension *exerted by the multiplicity of the filaments falls below a predetermined tension*. While Harrill teaches detecting the breakage of a number of filaments, rather than the breakage of the entire strand,⁸ such detection is done in an entirely different way, i.e., by detecting an airflow other than the one generated by the filament motion, because an airflow in the proximity of the moving filament will change, if the strand breaks. The airflow can move a baffle that serves to operate a micro-switch that can shut down the winders.⁹

Underwood also fails to remedy the deficiencies of Minkler, Fulk and Harrill. Underwood discloses a method and apparatus for exercising control of material processing units

⁵ See Fulk in the Abstract.

⁶ See Fulk at column 6, lines 43-53 and in Figures 1 and 6-8.

⁷ See Harrill in the Abstract.

⁸ See Harrill at column 7, lines 44-47.

⁹ See Harrill at column 2, lines 3-26 and in corresponding Figure 2.

to deliver material onto a moving conveyor, wherein the rate of movement of the conveyor can be modified if the material processing units fail to deliver material.¹⁰ Underwood further teaches that the load of an induction motor driving a pull wheel will change, if there is a partial or complete strand breakout, and that the phase angle of the motor's supplying current changes.¹¹ This phase angle change of the current is measured by a circuit¹² and is not the claimed monitoring of a position of a wheel.

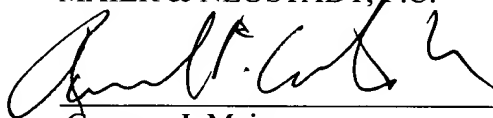
Arterburn discloses an apparatus for automatic fiber manufacturing, and is concerned with the process restarting the fiberizing machines after the fibers are broken.¹³ Arterburn merely states that "when one fiber breaks it is only a matter of few minutes until the entire bushing is broken out and generating scrap primary fibers."¹⁴ Therefore, Arterburn merely describes a part of the problem that Applicant's invention is trying to solve.

Further, Applicant believes that the combination of these references is not proper, since any combination would require a complete redesign of Minkler's system for detecting breakage of the entire yarn to arrive at Applicant's invention. Accordingly, Applicant respectfully requests review of the rejection based on Minkler, Harrill, Underwood, Arterburn and Fulk.

Based on the above-noted deficiencies in the outstanding rejections, Applicant respectfully requests that those rejections be withdrawn or properly supported.

Respectfully submitted,

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¹⁰ See Underwood in the Abstract.

¹¹ See Underwood at column 8, lines 3-8.

¹² See Underwood at column 8, lines 8-30 and in corresponding Figure 9.

¹³ See Arterburn in the Abstract.

¹⁴ See Arterburn at column 1, lines 54-58.